

Upgrade Information

1. MSSQL7 native driver is added to the list of supported database drivers.
2. Multilevel MPG selection (*3 levels max*).
3. MPG editor's browse function is fixed (*error detected on editing an existing MPG using multilevel MPG selection*).
4. Number of rejected pieces calculated automatically when the number of failures is one.
5. Program goes back to the previous level of the multilevel MPG selection. It can be disabled, in this case the program goes back to the main menu from all MPG selection levels. (*See the Special Program Settings*.)
6. MPG picture displaying is fixed.
7. Automatic data saving function of MPG is fixed.
8. When MPG includes E1/E2 commands only, the program does not input the sample data (*all sample data, sample time, operator ID, etc. are generated by the external measuring program*).
9. Faster calculation of the Capability Index Diagram.
10. Additional validation of Certificate settings
11. Certificate, settings are fixed (*checkbox*).
12. Capability Index Diagram calculation is fixed (*time border detection of indexes for months*).
13. Printing is fixed (*printing of more than one page*).
14. Displaying of the UCL/LCL if fixed (*on attributed control charts*).
15. Sample selection for $x_{i/m}x$ chart is fixed (*xBase database*).
16. Specification setting is fixed (*SQL database*).
17. New program mode for the operators. There is a new special setting to configure the SPC, which is used by operators only (password protection is enabled, common passwords are used, special setting is set: in this case the program does not input the password and all user are logged on to the operator's level).
18. Client PC's clock can be automatically synchronised to the SQL server. The synchronisation rate can be configured. The default rate unit means minutes, but it can be seconds using the follow special program settings in Registry (*see the manual of Special Settings*):

"Rate of Client Time Adjusting to SQL Server" = "sec"

The clock synchronisation generates periodic network traffics.
19. The sample size data is changed to number of samples on the Certificate.
20. Navigation in the attributed data input window is changed (*TAB can be used, the data can be entered without using of mouse*).
21. Mask code handled correctly in the list of attributed samples (*length is changed for 8 to 16*).
22. Measured sample list window of the control chart are changed. There are listed the following additional data: average, range, deviation, minimum, maximum values, value which is nearest to the sample average, *operator ID, shift and team ID, mask code, tool code*. Click on a point of measured value in the diagram and the list will be positioned automatically. Use the right mouse button to displaying the control chart of a sub-process, head or position chart.
23. The sample data displaying of the control charts can be configured (*see the Control Chart Settings item of Settings menu*).
24. One instance of the program can be used, multiple program running is disabled. This default feature can be disabled using a special program setting.
25. The attributed data can be printed into the Certificate. Capability indexes and failures data can be enabled or disabled (*supported with SQL database only*).
26. The sample selection windows (both of measured and attributed samples) can be configured to sort the samples using the mask code (*see the first item in the Analysis menu*).
27. There is a new menu point to remove samples from the database using date and time (time range can be removed from the database (*supported in the SQL database only*)).
28. The capability data of the Certificate can be listed to the screen, not to the printer only. (*See the Print settings item of File menu*.)
29. The data copying from xBase to SQL can be configured (*measured samples, attributed samples*).
30. There is a new warning window if the operator close the MPG window before collected data are saved.
31. Sound effect when out of specification measurements are entered.
32. New special measuring mode added to HNS SMUX4 interface.

Gauge code: HNSSMUX4-SP1

Measured value: $M_{(0:1)} = \frac{M_{chn\#0} - M_{chn\#1}}{2}$; $M_{(2:3)} = \frac{M_{chn\#2} - M_{chn\#3}}{2}$

33. Drop-down list support on folder and file name input fields (*xBase database path, MPG directory, etc., see a General program settings item of Settings menu*).
34. HNS SMUX-2, SMUX-4 SMUX-10: *Data* button handler is fixed.
35. HNS SMUX-2, SMUX-4 SMUX-10: Communication can be logged (*see the manual of Special Program Settings*).
36. Mitutoyo Digimatic MUX-50 and DMX-8: Communication can be logged (*see the manual of Special Program Settings*).
37. Microsoft SQL 2000 ODBC is supported.
38. Indexes are created with database installation (ORACLE and MSSQL). In case of upgrading the SQL Scripts\...\UPGRADE\EIndexes.SQL script have to be executed by DBA.

Closed: 01-10-2000

Upgrade Information

1. Measured samples upgrading of *Xi* or *mX* chart is fixed (*BOT*).
2. Function to archive (*xBase -> xBase, SQL->xBase*).
3. Attributed chart type selection fixed.
4. User interface of control chart and bar-chart fixed (*access rights by access level*).
5. Re-measure can be disabled in the MPG. The operator can not break the input process and can not go back and repeat the previously entered data, if this function is disabled in the *MPG Settings* menu.
6. Operator's actions in MPG data input flow can be logged.
7. Product selection in database which contains more factories, fixed (*xBase database*).
8. Control charts can be displayed automatically in case there are not input data in MPG.
9. Moving CL's on p and u charts when data input of process configured for variable (*not constant*) sample size. CL's can be calculated by changing size of samples or the average of changing size of samples.
10. The 'go to the last selectable sample' function fixed.
11. Displaying range of the control charts automatically set by the program, operator can see and check whole range of samples (*previously the operator could see the control range only in the default displaying of charts*). More possibilities for displaying of control chart: UCL-LCL, USL-LSL and Max-Min.
12. DataConnect: new date format supported: mm-dd-yy. Program automatically detects the yyyy.mm.dd and the mm-dd-yy date formats. Date formats can be used both in a DataConnect file.
13. Comment lines can be inserted into the DataConnect file. All rows handled as comments which are started with '*Σ**' or ';' character.
14. The DataConnect file can contains text comments by rows (*by measurements*). Program collects sample when loads measurements from the DataConnect file (*load rows and stores more measurements in a sample*). Text comments of measurements of stored samples are appended and stored in text comment field of sample. It means the external measuring application can send comments by measurements. Max length of stored text comments of sample is 120 characters.
15. Certificate can list the mask codes (e.g. *LOT numbers*) with their date range, when the certificate created by dates (*from-to*) and it contains capability and/or attributed data.
16. Multiple pages printing fixed.
17. Sizeable list window fixed.

Closed: 06-12-2001

Upgrade Information

1. MPG can be configured for accepting capital letters only in the input fields of mask code.
2. Drawing number is printed on Certificate.
3. Process selection menu fixed (*last used selection setting-up automatically on next selection, when sub-processes used without main process*).

Closed: 06-22-2001

Upgrade Information

1. MPG can be interrupted and operator can re-measure pieces if re-measuring is enabled in MPG Settings (operator level manual input window is fixed).
2. Database upgrade (xBase V5.31 → V5.4) function is fixed (list of operator actions).
3. Handling of measured samples which have same sampling time is fixed (this samples ordered by time of their physical storing).
4. New DataConnect feature added. Program can assign sub-process data to main process automatically. This service can be enabled or disabled in DataConnect Settings.

Closed: 08-24-2001

Upgrade Information

1. A/D card type selection is fixed in A/D measurement settings (*Settings* menu, *Gauges* item, *Gauges Settings* window).
2. Failure information is changed in initialisation window of *A/D [peak of quickly changed process]* measuring mode. Program checks trigger value (*Start [scale]:*) which set in *Settings* sub-window, because this value can not be lower than lower calibration point (*Calibration/point#2/scale*). Message '*Start?*' displayed in initialisation window status bar when invalid trigger settings found.
3. Measuring time seconds recognised and handled by DataConnect interface. Program recognised but did not store or write back seconds, but now seconds handled as part of measuring time.
4. Handling of HNS SMUX's communication failure during initialisation fixed.
5. Automatic communication port selection fixed in DataLogger windows.
6. New A/D card supports: Advantech PCL-818x (ISA), PCI-1731 (PCI).
7. A/D card list fixed in MPG editor.
8. Sample selection menu fixed (in sample remove functions).
9. Password input window fixed (disabled password mode: *, **, ..., *****).
10. Critical relations between xBase tables are checked in database maintenance function.
11. Save process settings function fixed (Measured process: save settings for next samples).
12. New service: HNS IDConnect (export SPC identifiers and names into text files, xBase and SQL database are supported).

Closed: 01-22-2002

Upgrade Information

1. Installation program changed (upgrade can be installed without removing of the previous version).
2. MPG supports warning window appearing when measured value is out of specification. Operator can re-measure the current parameter or assent the measurement. This feature can be enabled or disabled among MPG settings.
3. The *Sample data* window lists second maximum and second minimum values of current sample.
4. Removing of archived samples is disabled when SQL database used. This feature can be accessed using xBase type database.

Closed: 02-11-2002

Upgrade Information

1. Marker function added to measurement diagram. Marker can be placed and removed using measured value diagrams. Using like control charts.
2. MPG functionality is extended with specially filtered operator's diagrams. The operator's measured value diagrams and control charts can be filtered automatically using operator entered team ID and/or mask code.

Insert a new field into MPG header to enable automatically filtering: {MaskFilter} and/or {TeamFilter}
These fields must be inserted as 2nd and 4th field of 10th row of MPG header.

Another additional features are added to MPG. You can override the global program settings for team ID and/or mask code field inputs in MPG. Insert new fields into MPG header to enable empty team and/or empty mask code input(s) when program level MPG settings disable them: {EmptyMask} and/or {EmptyTeam}.
These fields must be inserted as 1st and 3rd fields of 10th row of MPG header.

The extended MPG header:

1. row	{MPG name}
2. row	{created by: name}{created by: ID}
3. row	{last modification}
4. row	{last using }
5. row	{sampling rate specification}
6. row	{can be used by, #1}{can be used by, #2}...{ can be used by, #125}
7. row	{comment}
8. row	{measuring / input strategy: A / P / K}
9. row	{product code}
10. row	{EmptyMask}{MaskFilter}{EmptyTeam}{TeamFilter}
11. row	\$...
	...

This row can be empty, so you can use your all previous MPG's without editing.

The fields are independents, so you can use new features as followings:

10. row	{MaskFilter}{EmptyTeam}{TeamFilter}
10. row	{EmptyMask}{EmptyTeam}{TeamFilter}
10. row	{EmptyTeam}{TeamFilter}
10. row	{EmptyMask}{MaskFilter}{TeamFilter}
10. row	{MaskFilter}{TeamFilter}
	...
10. row	0000

MPG editor supports these new features of MPG.

3. Team ID and mask code field names of factory assigned terminology settings can be overridden by new product level settings. You can specify the team ID and mask code field names between product definitions. If product level team ID and/or mask code names are specified these names will overwrite the factory level team ID and/or mask code names, otherwise the factory level field names will be used.

New function needs database upgrade. xBase database upgraded automatically. Run UPGRADE4.SQL script to upgrade Oracle database. Using Microsoft SQL database you have to run the PRODUCTx.SQL script.

4. Insert next string value into Windows Registry to assign Data range to analysis to sample lists of Data menu.

[HKEY_LOCAL_MACHINE\SOFTWARE\HNS\SPC\5.4]
"Use Date Range Settings for Sample List"="Enabled"

5. Control charts and measured value diagram of MPG are fixed.
6. You can assign a product to a machine in one-step using by Product items of Measured and Attributed process of Database menu.
7. HNS SMUX4 special measuring modes (stability detectors configuration using Windows Registry entries) fixed.

Closed: 06-04-2002

Upgrade Information

1. Second level rights extended with text file export/import.
2. DataConnect fixed (comment text when the sample can not be identified int the destination database).
3. Sample calculation fixed.
4. Drawing number length of product is extended (16⇒25).
5. DMX-1 fixed.

Closed: 06-04-2002

Upgrade Information

Publication date: 24-2-2003



1. Sample finished sound changed (sound on PC speaker).
2. New measuring mode added: SMUX10_SP1. It can be used to measure flatness using variable number of Digimatic gauges: *Measured value = Max(Chn#0...#n)*.
3. MPG window: fixed (even the gauge initialisation failed).
4. MPG window: program appears measurements of S type samples (not only direct measurements).
5. Sample ID's (shift-, team- and operator ID) can be modified subsequently using sample list (this feature available for measured and attributed samples both).
6. DataConnect engine fixed (*symptom was: not identified values load and saved to process of last identified value - invalid, extra samples can be saved...*).
7. DataConnect GDI error fixed.
8. MPG: automatic control chart appearing can be configured for appearing only for control charts found OoC (all automatic charts displayed or display charts with OoC).
9. MPG: you can configure MPG engine for automatic marker input when an OoC appeared on automatic control chart. You can configure automatic marker input for operator has to enter an intervention or text comment.
10. TESA BPI initialisation procedure fixed - inductive probes -.
11. Automatic outgoing value detection fixed (detection was invalid even sample had more values with damaged - can not be measured - status).
12. Chart selection fixed - in window of process settings using acceptance type of chart -.
13. MPG: counting of number of rejected pieces fixed - piece by piece attributed data input using S type command of MPG -.
14. MPG: multiple process appearance in the MPG's chart selection window is fixed.
15. MPG: all new measurements displayed in measured value diagram.
16. Data input type can be changed to manually input using keyboard on gauge error. This feature can be disabled for operator.
17. Current factory can be selected - changed - directly from the log-in window.
18. Export of attributed sample data fixed (xBase database).
19. Setting of number of decimals changed.
20. Default file type changed from GPI to BMP in picture file browser windows.
21. Chart type and kind of chart selection fixed.
22. Password settings window changed.
23. Tool tips added.
24. DataConnect engine extent for handling attributed data.
25. MPG: In-built parser added to MPG engine. User defined calculations can be use in S type command (calculation can use sample average, range, deviation, size, number of rejected pieces, etc.).
26. MPG: user can insert measuring command to MPG without process definition in the database. Operator can measure parameter, which is not defined in the database. These measurements can be used in S type command to create result values.
27. Sizeable window handling changed.
28. Invalid appearing of negative values fixed - it was operation system dependent -.
29. Public configuration data can get form *About* window.
30. Handling of specification and process settings fixed (SQL, modifying of settings).

Upgrade Information

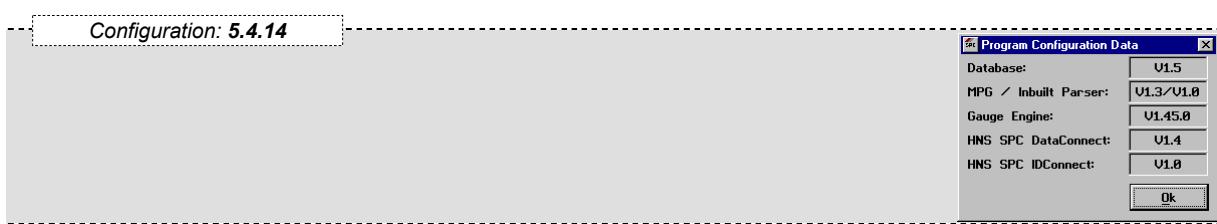
Publication date: 30-4-2003



1. Print function fixed.
2. Value conversion using HNS SMUX interface is fixed.
3. MPG file name conversion disabled.
4. MPG data saving fixed (saving was failed when MPG has one attributing sample and data saved automatically).

Upgrade information

Publication date: 22-7-2003



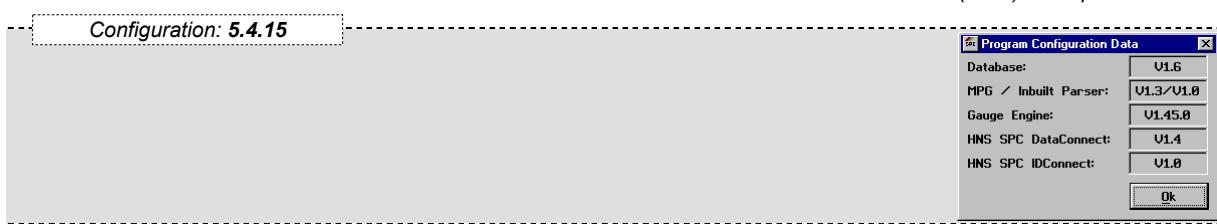
1. Automatically RUN and TREND OoC analysis and displaying fixed.
2. Sample data input window (MPG) fixed.
3. New special gauge added to list of supported gauges.

VFLATNESS: [SPEC] Motorised Flatness Gauges

This new special gauge - piece is rotated by in-built motor, in-built HNS SMUX-4 Digimatic interface, digital input and output bits to control the measuring process using PCI-1751 - handles the special measuring hardware.

Upgrade information

Publication date (Build): 2. September 2003.



1. New control chart interpretation inside failure groups: charts by failures (main chart with all failure data / chart by failure categories / chart by failures of the failure group).

Upgrade information

Publication date (Build): 25. November 2003.



1. Batch type export function added. After the selection of a product the program exports samples assigned to the product. Data can be exported into a simple text file or an Excel table. Export format can be configured as in the previous program versions.
2. New function to export interventions of the analysed range of process. Program exports process identifiers and interventions with their date, time and other sample data. Interventions can be exported into a simple text file or an Excel table.
3. The interventions of the machine can be assigned a product and a measured parameter and a failure group. When the operator uses the intervention list the list contains the specially assigned items and all especially not assigned items. Using this feature means simple intervention handling.
4. When the operator set a marker using MPG functions, he can extend the marker to all other samples of MPG (only the same machine related samples). This feature can be enabled or disabled in the marker input window.
5. The tool code field extended from 5 to 16 characters.
6. The factory delete function revised and optimised for speed (xBase only).
7. The xBase database maintenance function revised and extend.
8. New gauge type supported: OPTO-RS (Sylvac, Mahr, Tesa interface).
9. The team code field extended from 3 to 16 characters.
10. Version of the currently used database can be queried using the About window (SQL only, because the database upgrading is automatically in xBase mode).

Upgrade information

Publication date (Build): 19. January 2003.



1. Number of supported serial lines extent from 4 to 20. This feature makes possible to use up to 20 different serial line gauges and interfaces in a measuring station. Also can be used up to 20 different serial line gauges in MPG.
2. External data triggering supported. The program supports using of Advantech PCI-1761 digital I-O card to connect external foot-pedal(s) or external DATA button. These externals can be used to trigger value loading from measuring gauges or gauge interfaces independent from the gauge or gauge. Input bits of the card can be assigned to connected gauge or multiplexer interfaces.
3. Program supports different sound effect assigned the different measuring process actions. Different sound effects can be assigned to the data loading from the gauges, OoS status of the received measurement, gauge communication error and sample completed MPG state. WAV type sound files can be used.
The program uses PC speaker if no sound card installed.

4. mav Digital Tester ET(S), KMF force gauge supported.
5. mav Digital Tester DIPM type force tester supported.

Upgrade information

Publication date (Build): 28. March 2004.



1. DataConnect loading attributed samples - ADC - fixed.
2. MSI support added.

Upgrade information

Publication date (Build): 8. May 2004.



1. SQL session closing fixed (the program left opened session on re-connection to SQL database, this session was inactive until the user exits the program).
2. ADC (attributed DataConnect) file loading fixed. The program handles the feature, when the ADC file has not new line characters (Cr, Lf) in its last line.
3. Intervention identifiers copying in database archiving is fixed (SQL⇒xBase archiving).
4. Intervention identifiers copying in database copying is fixed (SQL⇒xBase copying).
5. SQL database, deleting of attributed parameter (failure group) is fixed (store procedure makes deleting have to be changed, script: Upgrade8.SQL).
6. Measured value status displaying in MPG measured value list is fixed.
7. MDC (measurement DataConnect engine) is revised.
8. MDC (measurement DataConnect engine) settings can be configured using the DataConnect Settings window of the program (settings functions moved from the Registry to the program menu).

Number of identifiable process by SPC (MDC) files can be set SPC (MDC) files.

Loading of process identifiers from SQL server can be configured, also user can speed-up the transmission if he has information about contained data in SPC (MDC) file.

New checkboxes:

Load process identifiers (...) by samples

To be turned on, when the SPC (MDC) files contain the measurements of process in order of process identifiers.

Load process identifiers (...) by files

To be turned on, when the SPC (MDC) files contain more process than the identifiable processes.

9. Buttons of the attributed chart is fixed (buttons are moved correctly when the chart window is resized).

10. Sample data displaying, display area size and the settings window are modified on the measured and the attributed charts.
11. The user using database terminology window can rename the shift fields (same to mask, team, tool fields).
12. Selection menu of the attributed samples is fixed.
13. The handling of the *Beginning date* and *Elapsed date* buttons in the *Date Range Settings* window is fixed.
14. Displaying of the shift identifiers on the control charts is fixed (in sample data area of the charts).
15. Control limit displaying is fixed on the acceptance type measured chart.
16. Automatic OoC detection in case of upper or lower sided specification is fixed on the acceptance type measured chart.
17. The chart and OoC settings windows handle correctly the appropriate checkboxes using the type of the current (double or one sided) specification.

Upgrade information

Publication date (Build): 17. Jun 2004.



1. Handling of data collectors (*DP7, DP3 / DT10 / Starrett*) in case of Windows2K and XP operation systems is corrected.

Windows 2000 and XP operation systems are not in 100% compatible with the earlier Windows operation systems in the handling of the modem-control lines of the PC serial line, that's why the earlier versions of the program operated by these operation systems indicate error at the beginning of the read of data collectors.

The actual, corrected program version is able for handling of data collectors and for read of their stored data in case of all operation systems.

2. The round of the measured values suitable for the number of set decimals is corrected.

In the earlier version of the program we modified the handling of the fed measured value by a rounding suitable for the set number of decimals (the qualification of the measured values in the measurement result list of the MPG, representation of numbers, the classification of measured values corresponding with tolerance limit). As a result of the modification an error depending on the PC hardware and operation system got in to the program. This error was corrected by the whole replacing of that part of the program, which operates the roundation.

3. The export into an Excel table of the measured samples marked for an analysis is corrected.

During the export the earlier version of the program wrote the title of the column of the Excel table false, because the title of the column containing the outstanding status missed.

4. The handling of addresses of the parallel ports has changed – only in the case of Windows2K and XP systems –.

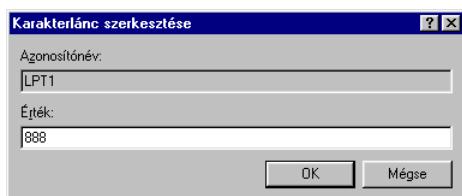
In Windows 2K and XP operation systems the handling of the physical addresses of parallel ports has changed, that's why these operation systems from this point of view are not compatible with the earlier Windows operation systems. The program detects the physical addresses of the parallel ports automatically during the run on the earlier operation systems and uses them during the handling of the HNS MUX-4 type gauges, which can be connected to parallel port. The appearance of the latest, bi-directional – ECP, EPP – parallel ports hindered the use of these ports earlier as well – because of the incompatibility of the new hardware with the original Centronics standard –, that's why we do not advice the use of these gauges hereafter. The

program on the new operation systems supports the use of the earlier, referring to HNS MUX-4 gauge measuring program – in MPG editor, and in automatic control chart displaying mode – as only through a special set possibility.

You can refer to HNS MUX-4 in the measurement task by giving the LPTx logical address. The program detected automatically to this logical address belonging physical address in case of the earlier operation systems. On – 2K, XP – new operation systems the assigning of logical – physical address must be given by creating a Registry key, which belongs to the program.

Key: HKEY_LOCAL_MACHINE\Software\HNS\SPC\5.4

Note: LPT1, LPT2 or LPT3 - string value!



The physical address of the given LPT port must be disclosed like decimal value as a value of the note:
278h = 632, 378h = 888, 3BCh = 956.

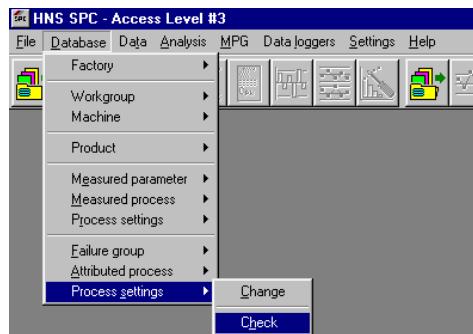
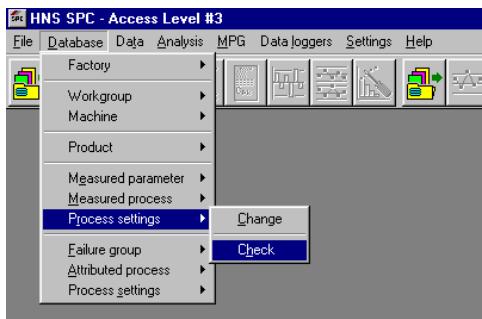
Note: if we give the physical address of the port properly and hardware compatibility exists, then HNS MUX-4 gauge can be used hereafter on 2K and XP operation systems.

Attention!

In case of a program upgrading with simple change of files – not with the run of install programme – the earlier not used GET_IO.DLL file must be copied in the program folder.

5. The redundant – seems like not used – set limits of the measurement and attribute processes can be removed.

If we modify the settings of a period of a process in a way, that after the modification the settings fully correspond to the settings of the given process period preceding or following process period, then the proper settings border – as a breakpoint – can be removed. This way unnecessary becoming setting borders can be removed by the use of two new menu items of the Database menu.



After starting the menu item and selecting the suitable process, checking of setting borders begins and the program removes the redundant setting borders – breakpoints –.

Attention!

In this way removed setting borders can not be later restored.

6. The printing error appearing on Windows 2K and XP operation systems is corrected.

The earlier version of the program printed deficiently the graphic forms on Windows 2K and XP, because it printed certain parts of graphic illustration deficiently, not with the correct colour, and not with the proper pattern.



Upgrade information

Publication date (Build): 15. August 2004.



1. Special Hungarian characters appearing fixed ('ő' in prompts of the programme windows).
New fonts used in this version (SPC1.FON).*
2. Automatic parallel port detection fixed - see 5. in upgrade information of previous version -.
This version uses fixed GET_IO.DLL.
Previously supported special settings - Registry entries - are supported in the future, too. If there are not this special settings, than the programme detects the available parallel ports and their physical address to use.
3. Print design changed.
All printed page formats are changed.
Attention! The Product Certificate is also changed, and there are minor changes in its contents.
4. New print design to print capability study page.
New function added to print Q-DAS style pages - old style is available too. Print style to use can be selected with Print Settings item in File menu.
5. New function to print parameter certificate.

In previous versions used product certificate is available in the future too, but new function added to make certificate separately for a selected parameter of a product.

The printed certificate can be DIN EN 10204 standard compliant.

The constants - not changed information, e.g. company name, address, header extension text, static comment section, signature - are configured with appropriate - level 3 - access rights.

Programme loads identifiers from database to print on certificate. Specification data can be load from database, but can be entered manually by operator.

Results printed on certificate are calculated using data saved in database. LOT can be attributed by programme using minimum, maximum values and the specification or quality state can be checked by operator.

Other fields of the certificate can be filled by operator before begins printing - e.g. quantity, date of production, inspector title -.

Certificate can be printed in English and in Hungarian - language to print can be selected by operator -.

6. Elcometer 300 B/SP supported as simple gauge.
Elcometer 300 Coating Thickness Gauge is added to the list of supported gauges. The B (Basic) - and the ST (Statistic Printer) versions too - can be used as a simple gauge connected to PC using a serial line interface.
7. Elcometer 300 SP supported as data logger.
Elcometer 300 SP (Statistical Printer) can be used as data logger, it can store data in memory and can calculate basic statistics. The new programme function makes possibility to load data stored

in Elcometer 300 SP and save this data into the SPC database. Using of the new function is same to previously data logger functions.

8. AD-Fast - A/D measuring to detect peak of fast changed analogue signals - changed.

This measuring mode is hardware dependent, so the default measuring time is different by PCs. Measuring time can be configured setting of number of measurements. Number of measurements can be set using a special Registry entry. This number was limited - < 65535 - in the previous versions, but it can be set freely from this version.

9. AD-Fast - A/D measuring signal diagram can be shown.

Measured value / time diagram can be shown in a separate window on the screen. Turn on the diagram checkbox in the gauge settings window to show the diagram.

10. Outgoing value detection works on samples when size is upper than 20.

Automatic outgoing value detection worked when the sample size was less than 20, but now the detection is working on all possible sample size.

Upgrade information

Publication date (Build): 9. November 2004.



1. The represent of date and time of sampling in MPG window - updating after giving sample data - has been corrected.

2. The handling of stored size- and position features of windows has been modified in case of non-sizeable windows.

3. The setting into basic position of the stored features belonging to windows has been modified.

The function has been removed from General Program Settings window to an independent menu point of menu Settings. In the upgraded version the function sets the features of the main window into basic position, as well.

4. Dynamic sizing of windows has been introduced - Windows XP compatibility -.

The upgraded version of the program handles the window features which differ from special - frame and heading size differing from default -, and as a result of this, the size problem appearing in a few windows during the run on XP comes to an end - the position of some buttons, the size of some graphics are not adequate.

5. The represent of measured values without decimals has been corrected.

6. Parameter certificate has been modified.

In case of non-automatic qualifying the program does not print No Data label in the measurement results column. So the column remains free, and it can be filled manual by the operator.

7. Feature and product certificate have been modified.

The program prints the name and drawing number according to default into the column of product identifier of the certificate.

The print of unique product identifier used in SPC database can enabled with the following Registry note

*HKEY_LOCAL_MACHINE\SOFTWARE\HNS\SPC\5.4
"Product Code On Certificate" = "Enabled"*

After giving Registry note the program prints the identifier, the name and the drawing number, as well, into the product identifier column (in that case when the product identifier is the same as the drawing number of the product, then this identifier appears only once).

8. CD auto-start HTML has been modified.
9. The elimination of sample, and the setting of the faulty and outstanding status of measured values are enabled also for the second accessibility level after the upgrade – earlier it was permitted only for the highest accessibility level -.
10. Automatic detection of outstanding values in the function of text-file import.
The program performs the examination of outstanding data also in case of import from measured samples – measured values – text-file, if in the menu point Settings / Calculations the performing of the examination and the automatic status is enabled.
11. MPG: the handling of size of sample has been modified.
The program gets the sample size, and the number of measurements to be carried out from the database and later it does not use in the MPG file given sample size. This enables the use of the same MPG file in that case, as well, when we change in the database the sample size in the given process, or Xaverage-Xi/mX regulator card adjustment happens.
Note:
Because of the retaining of compatibility with earlier versions the format of MPG has not changed – so the actual sample size by creating appears in the measuring task in the future, too.
12. The cancelling of process definition - the handling of Cancel button of window for process settings - has been corrected.
13. The drawing of warning limits has been corrected.
The correction concerns special cases – for example representing of faulty given, stored warning limits -.
14. OoC detection has been corrected.
The correction concerns that special case, when the sample is out of tolerance, but it is not out of control limits. Earlier the program did not regard it as a sign of OoC, the upgrade detects already this case and sign it.
15. Represent of control chart has been corrected.
The program handled the uncovered display area during the re-drawing of control charts in certain cases wrong.
16. Handling of Settings changes has been corrected.
In case of settings identity the program compares only the actually used settings values – for example while using automatic regulator limits, the program do not take the unused, fixed regulating limit values into consideration
17. Applications: task data have been corrected.
Among the task data appearing in the lower part of applications, the print of value of under limited tolerance was wrong.
18. The representation of text lists on screen and the print of lists have been corrected.
The capability study sheet the list of data of capability index diagram and the list of certificate data have been corrected and modified.
19. Handling of diacritical marks in case of xBase database has been modified.
The compatibility options with earlier – 5.3x versions – have been removed.
20. The feed of 0.00007-0.00009 values has been corrected.
Earlier these values were handled faulty by the program.
21. The program prints besides the min-max values also the average value on the parameter certificate.
22. The print of Q-DAS format capability study sheet has been corrected.

In the identifying part of the application the program used to print date-time and quantity data – in certain cases – wrong.

23. The decimal and the separating mark - the „format” of the file to be imported - is selectable during the import of measuring values from text file.

As decimal and separating mark can be given: a '.' and a ',', or a ',' and a ';'.

24. Among DataConnect settings, in the previous point defined setting is also possible.

25. The Settings intervals check function in Database menu has been corrected.

26. Oracle multi-scheme support.

The PL/SQL scripts given to the administration and the program have been modified. In what follows it is possible to create more, from each other independent scheme, so - from the point of the user – several, from each other independent 'SPC database' can be created and can be used on the same Oracle database server.

The earlier version used to support only one, according to default SPCUser named user / scheme. In the proper script of the upgraded version - USER.SQL – it is possible that the database administrator defining the user/scheme can give the name to be created. Under different names optional number of schemes can be defined, and for their handling SPC program is prepared.

27. MPG regulating card represent has been modified.

The download time of data has reduced by the optimisation of Oracle select used for the load of data of control chart, so the appear of control chart has become faster.

Upgrade information

Publication date (Build): 6. January 2005.



1. Detection and using COM10-COM20 serial ports are fixed on XP.

Previous version could not detect and use ports above COM9 on XP, this compatibility violation eliminated by this fix.

2. MPG parser changed.

The length of the formula can be defined in S type MPG commands changed from 64 to 255 characters.

3. MPG Editor fixed.

Gauge port and channel controls are fixed on the MS/M/MX page of the MPG Editor. Previous version changes settings improperly on scrolling commands of the page.

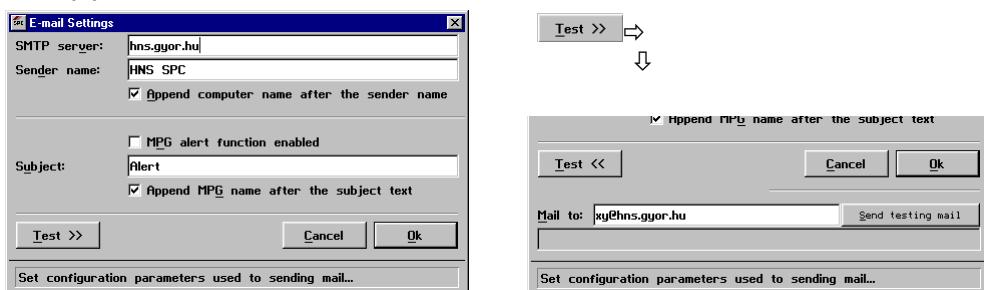
4. MPG Alert sending by e-mail.

This version supports monitoring of events occurred while MPG is used. The program collects this events, creates a text report, and sends this report to a recipient mailbox.

Events can be monitored and reported automatically:

- a. *Data input events (e.g. re-measuring, damaged status assigning to the piece, measured parameter is out of specification, data input aborted by the operator, etc.),*
- b. *Control chart events (e.g. the process is not stable, OoC cases, distribution error, too low capability index value, etc.),*
- c. *Operator actions (intervention made or comment placed by operator on the chart).*

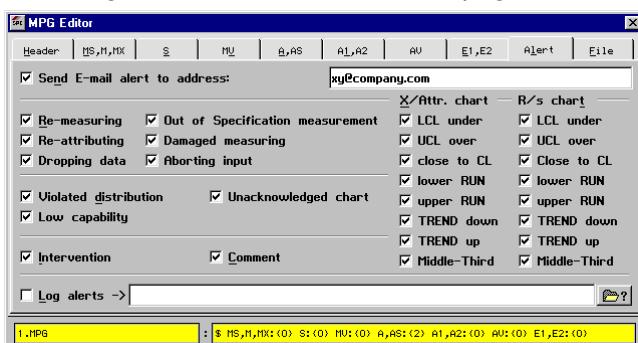
The mailer function of the program have to be configured before it can be used. Go to the Settings menu and select the E-mail item. The next dialogue will be appeared to make configuration determined by your network infrastructure:



You can use this function if you have an on-line SMTP server connection on the PC runs the SPC program. This SMTP server can be configured for the program by its name or by its IP address. In the second line you can set a free text used as the sender name in the sent mail. You can extend the sender name with the name of the machine sends the alert mail. In the subject section of the window can be enabled or disabled the MPG alerting function, and can be set alert mail subject text.

To check your settings and working of mail feature, use Test button to open lower section of settings window. Enter a valid mail address and click on Send testing mail button. The program attempts to send a mail to this address using the specified SMTP server and other settings. The status of the attempt will be appeared in the status bar below the mail address and sending controls.

The MPG alerting can be configured in each MPG, so a new page added to the MPG Editor:



Alerting can be enabled by entering a recipient's mail address and selecting events to be monitored and reported. Alert mail texts can be logged into a file with ALR extension and same name to the MPG file - this is a simple text file -.

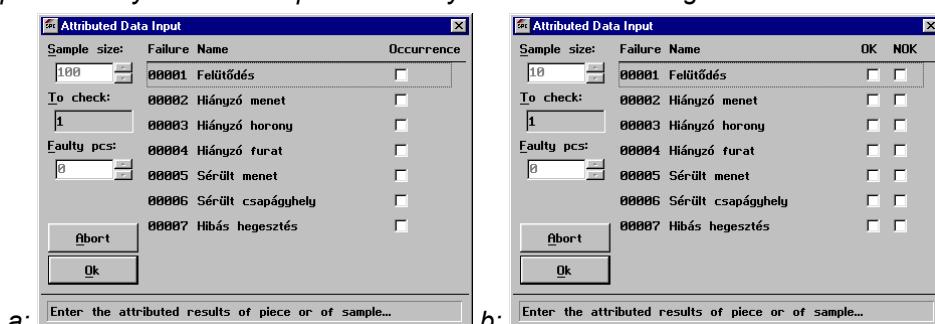
5. Screen list window changed.

Text lists can be screened with unlimited length.

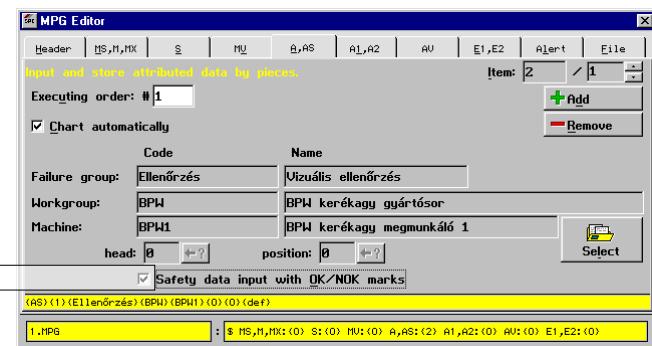
6. New data input mode for piece-by-piece attributing.

There are two data input mode for piece attributing in the MPG:

- "failure found on the piece" entering mode,
- "piece OK by the failure"/"piece NOK by the failure" entering mode.



Mode to be used by the operator can be selected on A,AS page of MPG Editor, using the Safety data input with OK/NOK marks switch:



7. OPTO-RS gauge support fixed.

There is a small incompatibility option between TESA and other OPTO-RS message implementations. TESA doesn't send positive sign of the measured value, while other OPTO-RS gauges send it. The TESA OPTO-RS dialect is automatically detected, and value reading works correctly with this fix.

8. Gauge name can be set and displayed on measuring.

You can assign a free name to each gauges selected in measuring commands of MPG. When the operator uses the MPG, this name - if specified - will be appeared in the gauge window during measuring.

Upgrade information

Publication date (Build): 25. January 2005.



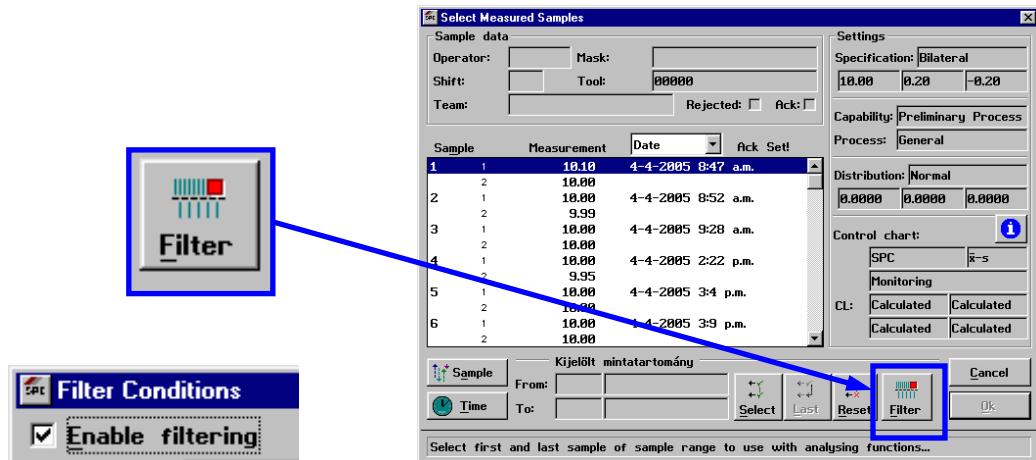
Hot fix: displaying of control charts of MPG 'MS'/'MV' and 'A1,A2', 'AV' commands is fixed.

Upgrade Information

Closed: 08-04-2005

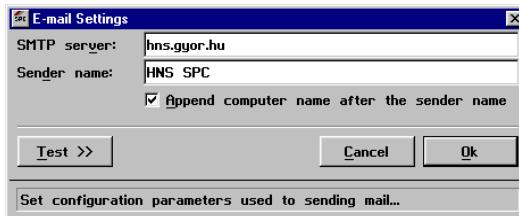


1. If the filter is set and available by select of a sample range onto analysis (at appointment of variables and attributes, too) on the *Filter* button are seen a red-coloured, blinker warning.

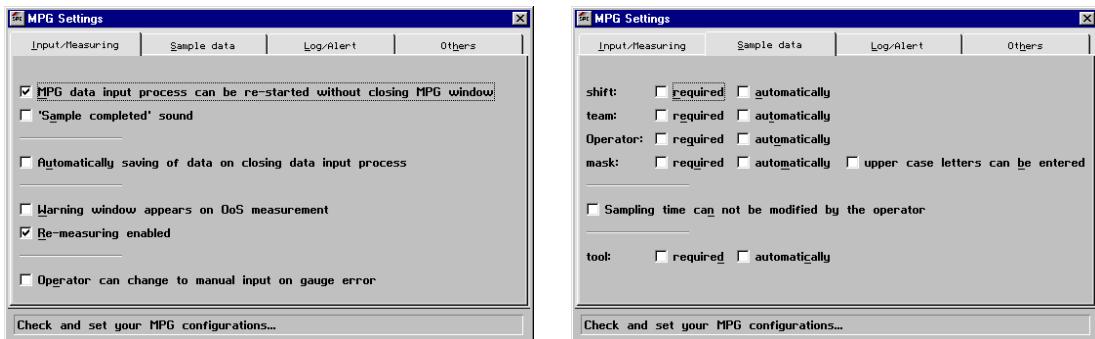


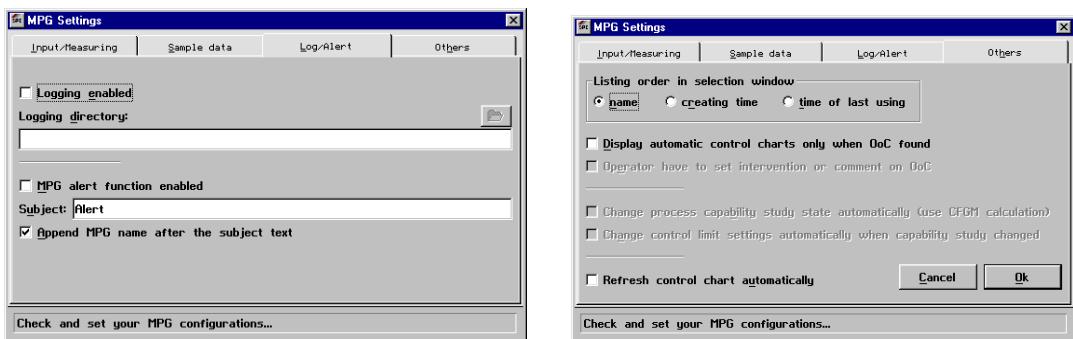
This view is warns, that in the "Filter Conditions" window the "Enable filtering" switch is on.

2. The view of drop down list of filename choose windows is corrected at the opening of the window.
3. The settings relative to measuring program were relocated from the *E-mail Settings* window in the *MPG settings* window (see also in the following point).

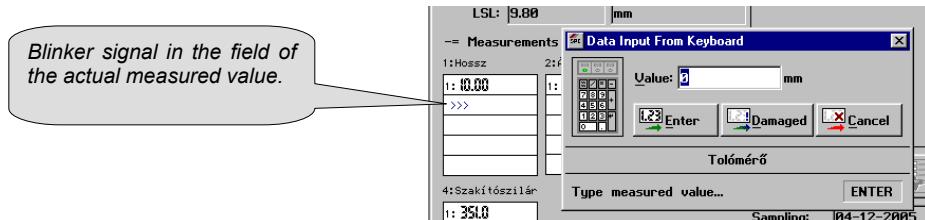


4. The *MPG Settings* window was changed, the setting possibilities, that are a functional group, were located on separate sheets in the settings window.



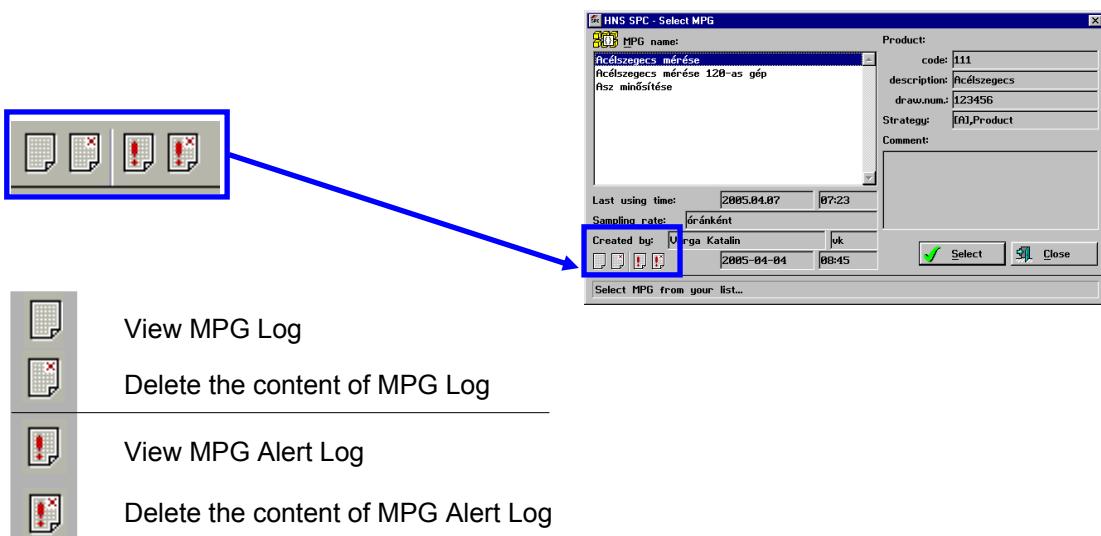


5. E-mail sending is possible also outside a domain.
6. The program signals the actual position of the even measured value by measured data input in the MPG window (is no signal by attributes).



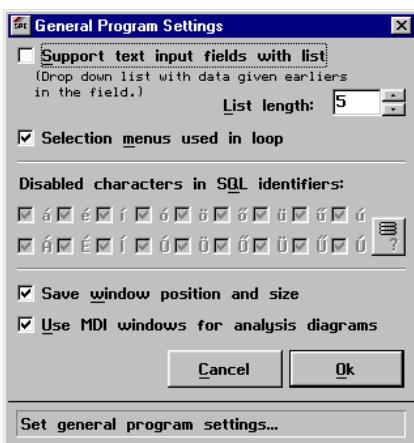
Repeat: The signal steps back, the earlier measured value, which must be measured again is seen grey-coloured.
Back: The signal steps back to the first item of the row, and every measured value of the cancelled row, which must be measured again are seen grey-coloured.

7. It is possible to make a log file about the using of MPG and MPG-alert (see Program - and MPG Settings). The log files can be seen in the Select MPG (modification, using, delete) window.



8. The engagement of the processor, generated by the program was developed. The processor usage index was 100% by the run of the previous versions, because the program used up all the available, free processor-time.
Note: the program used up only the free processor-time, so the program did not distract processor capacity from other applications.
9. MPG window can be closed by press down the ESC button (to give assistance to the operator, who works solely by keyboard).

10. Printing error of the text list is corrected (the program printed only header randomly).
11. Oracle database query, which is necessary to view of control chart for measured parameters, is optimised.
The current version is faster by 90%, than the previous version - after our measurements.
12. It is necessary less time by 20% to appoint measured values for analysis (after our measurements).
13. The program gave false OoC-signal in case of one-sided, low-limited tolerance. The failure is corrected.
14. Backup the samples by time is corrected in case of SQL -> xBase backup. The previous version did not make allowance for time-limits, and the whole attributive database was copied by backup by time.
15. MPG: there could occur in the earlier versions, that the control chart, which should appear in case of Out-of-Control automatically, appeared in the case, when there was any Out-of-Control on the control chart. The reason of this was the fault Middle-Third analysis by using of MPG. The failure is corrected.
16. Analysis window handling by MDI (*Multiple Document Interface*) is possible in this version, respectively can be appointed more separate range of sample by this view.
Using of MDI windows can be switch on in the *General Program Settings* window.



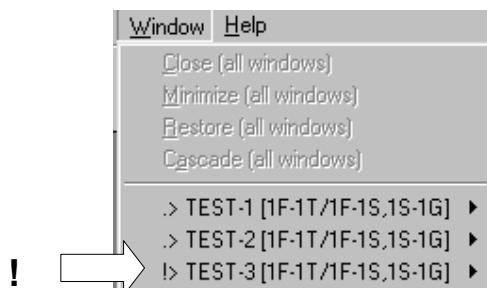
In case of using MDI windows can be seen the *Window* menu in the main menu by the appointment for analysis. The appointed data for analysis and the opened analysis windows can be managed in *Window* menu.

It can be appointed more, at the most eight range of sample in the same time.

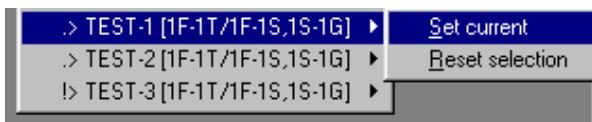
The identifiers of the appointed sample range can be seen in the lowest menu items of the *Window* menu. The identifiers in order: parameter [product / workgroup, machine, head*, position*].

* if the sample range is appointed in reference to head / position.

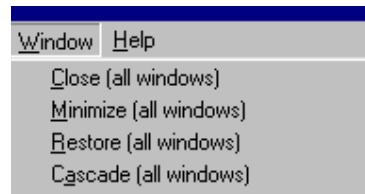
The actual appointed sample range (Set current) is marked by a “!” on the first character-position of the menu item.



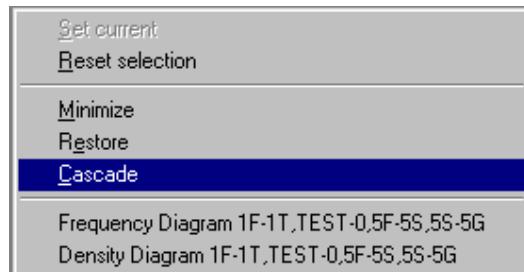
Defined operations by appointment of sample range: set current for an appointment, reset the selection.



It can be opened analysis windows in reference to current selected sample range. The first menu item of the *Window* menu is in reference to all opened analysis windows. All opened analysis windows can be closed, minimized, restored and cascade by these menu items.



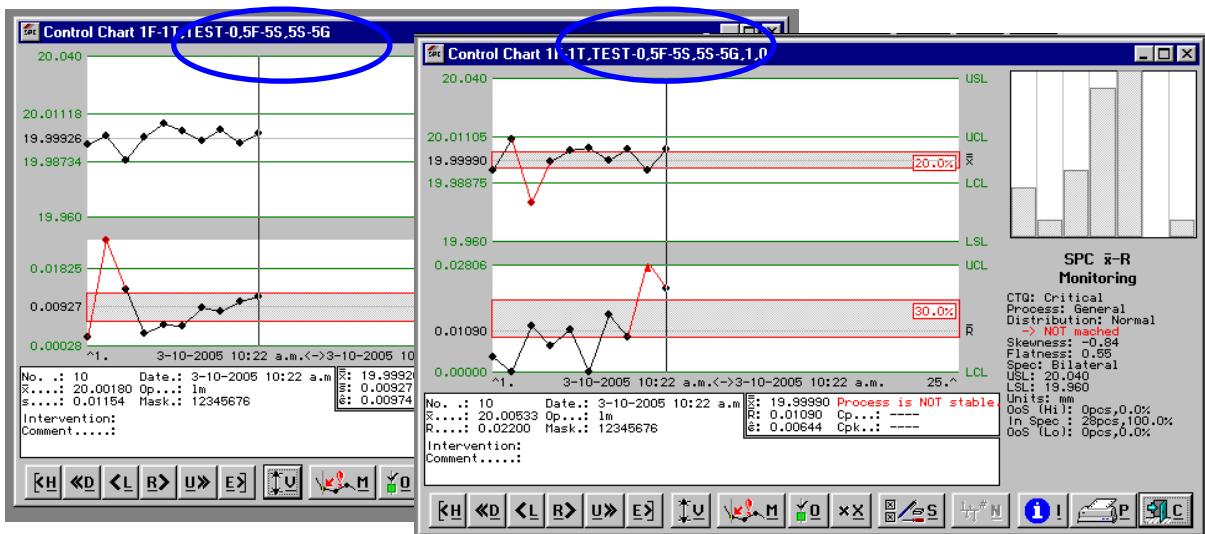
In reference to all windows of the current sample range are defined the following operations: minimize, restore, cascade. In the under rows of the submenu are seen the windows, which are opened for analysis. These windows are marked with the following identifiers: name of the analysis (window header), product, parameter, workgroup, machine, head, position.



Note:

It is necessary a view with large resolution to using MDI windows. It is proposed a view with resolution at least 1024x768 pixel to use this mode.

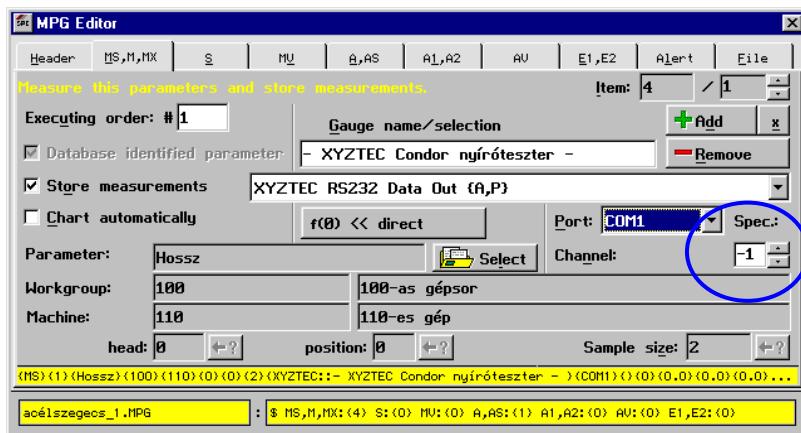
17. Every identifier of the process (product, parameter, workgroup, machine, head or position identifiers) is seen in the header of analysis windows (in the following example is seen control chart relative to machine and separate for the first head of the machine).



18. XYZTEC tester (XYZTEC RS232 Data Out) is suited.

The program is fit for receive measured values of the XYZTEC tester, handle its measuring modes, namely set from MPG automatically.

The mode appointed for measuring the given parameter should be defined in *MPG Editor* between the gauge settings in the 'Spec.' field.



XYZTEC tester handling modes, which can be set in MPG:

- Simple mode for receiving measured values: Spec. = '-1'.
The program does not make extra mode setting – it is no code sent out - in case of this mode.
Gauge identifier in MPG: 'XYZTEC'.
- Automatic mode setting for receiving measured values: Spec. = '0'...'99'.
Spec. field consists the tester mode, which can be set automatically at the started the measuring – without operator intervention, by MPG. Mode is set by sending an identifier code, which is defined in Spec. field, after the checking of the feedback, which comes from the tester. The mode is also closed by MPG automatically.
Gauge identifier in MPG: XYZTEC#N, where N is a mode identifier from 0 till 99.

19. Scale type KERN EC is suited.

20. SQL database: creating product certificate by mask code.

Certificate can be created faster significantly as a result of optimisation of database getting used in this function.

21. Data export to Excel: TMO value can be set longer by 1 minute, too.

The name of the relevant Registry: 'Excel DDE Client TMO'.

The name of the relevant Registry: string value,

Possible values: 1 ... 600 [defined in second].

22. xBase database: new check function by correcting a failure in the ASAMPLE.DBF table.

Name of the Registry, which makes for switching on the check:

'Check ASAMPLE.DBF Unique Key Duplications on Re-indexing'.

Value of the registry: 'Enabled'.

This new, check and correct function is built in the database index, should be used by the followings: above Registry should be defined, than should be started the Reindex xBase database function.

23. Reserved identifiers can be seen and copied at adding new identifier (measured parameter, failure group). In this window can be seen all, earlier existing identifiers – contrary to earlier versions.



24. The list of the interventions, which are defined by a machine can be exported to a text file, respectively can be imported from a simple text file by following buttons:



Attention!

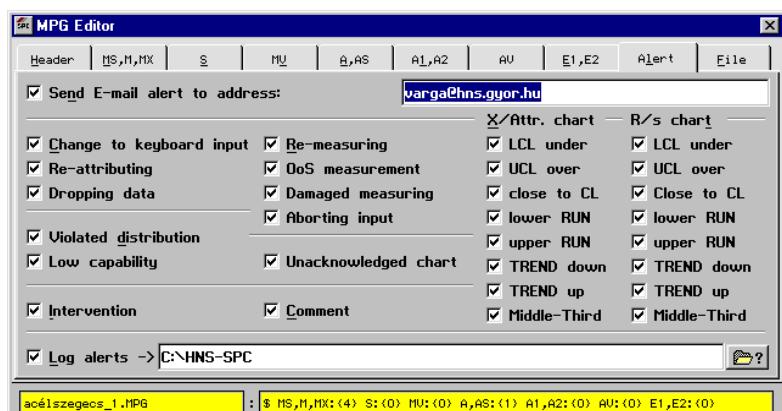
Intervention export and import extend only on the name (first and second name) of the interventions, special dependencies (product, measured parameter, failure group assignation) are not copied.



25. The control chart view is corrected in case of one-sided tolerance parameter at view between specification limits or maximum - minimum values (on the X chart).
26. MPG: the log and the alert did not consist earlier the changing into data input by keyboard by the operator (in case of gauge error). In the current version writes the program also this event into the MPG log, and the monitoring of this event is in MPG alert, too.

Note:

The view of control charts can be happened with choosing by the operator or automatically on the basis of the defined MPG setting. The analyses in reference to control chart, process and distribution are performed only in reference to viewed control charts, simultaneously with the view, and the alert is done on the basis of these analyses. As previously is written, the alarm (e-mail message) is sent at the exit from the program or at starting a new data input.



Suggestion

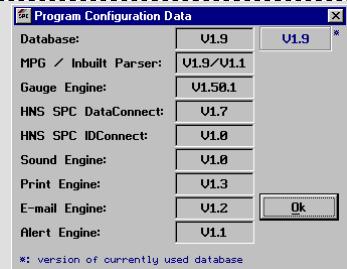
The "Chart automatically" switch in MPG should be on to monitor and alert in reference to accentuated processes.

27. Failure in handling of rejected sample is corrected.
If all measured value is invalid (outstanding or damaged), than the status of the sample is set rejected automatically, and this status cannot be deleted, till it is not a valid value in the sample.
28. If compulsory tool identifier is defined, than from the tool identifier window cannot be gone on without filling in.
This window could be closed earlier.
29. The current sample size can be set in data input window in case of changing sample size by input attributes data by pieces. This value was accepted without control by earlier program version. If the defined value was lower, than the number of pieces taken into already, than the given sample was not recorded in the database. The failure is corrected, the actual defined sample size must be larger or equal to the number of pieces checked and taken into already.

Upgrade Information

Released: 09-29-2005

HNS SPC V5.5.1



1. Magna Mike 8500 Thickness Gauge added to list of supported gauges.
2. A/D card support extended with supporting of Advantech PCI-1711.
3. [Special]: Flatness Gauge name settings fixed.
4. Precisa BJ-series balances added to list of supported gauges.
5. Bizerba HW/HWI series balances added to list of supported gauges.
6. New MPG feature added.
You can set the method of ID inputs on beginning of MPG's:
 - ID inputs on each MPG running,
 - ID input on the first running of the MPG - program will use this ID's on next runnings of the MPG -.
 This feature can be enabled or disabled in the MPG.
7. New MPG feature added.
There is a function to generate the head or position ID's - numbers - automatically. Before this version, these ID's can be typed by the operator using the keyboard only. Now, you can configure the MPG's for automatic ID generation - if there is a rule to generate ID automatically -.
8. The number of heads and positions of machines can be changed, Before this version, the number can be set when the machine is defined, and can not be changed later.
9. Measuring of peak of slow-changed analog signal (and Spec.: halogen lamp bulb measuring) fixed - problem with sound on end of measuring process -.
10. HNSSMUX4-SP1 gauge module fixed.

11. Automatic OoC Alerting

See the User's Manual.

V5.4.25⇒V5.5.1

Upgrade Information

Released: 06-12-2005

HNS SPC V5.5.2



1. **Reports.**
2. **Automatic data export.**

See the User's Manual.

Upgrade Information

Released: 03-31-2006



1. Process creating is fixed (process deleted when machine assigned to a parameter already related using xBase database).
2. Measured data import is fixed.
3. English user interface is fixed (invalid icons are corrected).
4. Default values of index Cm and Cmk are changed from 1,33 to 1,67.
5. Invalid capability index displaying on control chart is fixed.
6. English OoC message text is corrected.
7. MPG: *Automatic Head Tracking* is fixed.
8. Invalid stable/unstable status detection is fixed (may be occurred on beginning of *Xi* chart).
9. MPG: handling of one sided specification is fixed in *Mx* command.
10. Texts in English reports are corrected.
11. Invalid sending of OoC alerts is fixed.
12. Default Zgoal can be configured.
13. Pareto diagram is fixed.
14. 6Sigma-Capability Analysis Report: unit column is fixed.
15. Riasztás állapotmátrix a könnyebb érthetőség érdekében kismértékben átalakítva.
16. MPG: ebben a kiadásban a szabályozókártyák automatikus megjelenítését azok OoC státuszától függetlenül is elő lehet írni.
17. 6Sigma-Capability Analysis Report: PPM LT/ST and potential Z/PPM calculations are fixed.
18. Alert: task death is fixed.
19. Automatic services (Alert Engine, Export Engine and DataConnect) are automatically shooting down on changing of factory or database.

Upgrade Information

Released: 06-24-2006



1. Logging in database archiving function.
2. MPG: re-measuring after gauge error in *[K] Device* strategy is fixed.
3. MPG: gauge interface locking can be configured – whole time of MPG using or under data inputs only.
4. MPG: can be run with keyboard inputs only for testing or entering extra using PC is not a configured Measuring Station.

Upgrade Information

Released: 2006-08-31



2006-08-17: Microsoft SQL database – Report Engine fixed.

2006-08-31: Teradyne Laser data loading function fixed for access level #1.

Upgrade Information

Released: 2006-11-20

**New functions:**

1. New surface to functions in Database menu, wherein user can view in a table definitions and settings stored in the database. User can from here add a new item to database, modify or delete an item. Here is a new function: user can copy database items, too.
See **Database menu Table functions**
2. New Out of Control strategies.
See **Database menu Process settings menu item OoC function**
3. New automatic alert criteria.
See **Database menu Process settings menu item Alert settings function**
4. Insertion the Johnson – transformation, which transforms non-normal dates in normal distribution.
See **Database menu Process settings menu item**
5. Reports can be exported directly to MS Excel file.
See **Reports menu**
6. User can make report template which consists settings of the report. By means of report templates user can make a report with same settings – only time range must be set.
See **Reports menu**
7. Possibility for copying in user password-list. User can copy into selected factory the dates of users from an other factory.
See **Settings menu Password menu item Personal sheet Add user function**
8. Automatic alert e-mail address lists can be handled from user password-list:
- if a user is deleted from user password-list, program deletes the user also from automatic alert e-mail address lists automatically,

- user password – list consists a possibility for deleting users from all automatic alerts e-mail address list in a step,
- if a user's e-mail address is changed in user password list, program changes the address also in automatic e-mail address lists automatically.

Last two function is available only in SQL database.

*See **Settings menu Password menu item Personal sheet***

9. User can choose the possibility to display Z index instead of process capability index onto control chart. By test of automatic alert criteria relative to low process capability can be used Z index instead of process capability index, too.

*See **Settings menu Control chart menu item***

*See **Settings menu Automatic alerts menu item Service function***

10. The mark and value of centreline, specification-, control- and warning limits is displayed in its actual position – as default. These can be overlay each other. Toward elimination of overlaying user can choose display in fix positions of marks and values.

*See **Analysis menu Analysis menu item Control chart function***

11. Density function is plotted for the whole range of screen (so far it was plotted from minimum value to maximum value).

*See **Analysis menu Analysis menu item Density function***

12. New function was built in MPG editor: user can create and save a sample from collected measured dates not only for product which is set in mpg header, but also for other product.

*See **MPG menu S item***

13. HeadTracking function was built in MPG editor. This function allows of view control charts for heads and positions.

*See **MPG menu S item***

14. Enlargement the maximum length of user ID to 9 characters (instead of 5).

User can change the name of user ID.

*See **Settings menu Database terminology menu item***

15. User can change the default names of CTQ types (critical – significant – normal) - by measured parameters.

*See **Settings menu Database terminology menu item***

16. If user deletes measured samples by discrete setting, program calculates the relevant moving average, moving range and moving deviation values in control chart again.

17. User can choose in four ways how handles the program damaged measurements in automatic export function.

*See **Settings menu Automatic exports menu item Service function***

18. New possibility in archiving function: it can be archive separate the dates of individual factories, too.

*See **File menu Archiving menu***

19. New possibility in histogram calculation.

*See **Settings menu Calculations menu item***

Modification, correction:

20. Lognormal distribution: distribution parameters, display of density function.

21. Median – range chart: calculation of centreline and control limits.

Median – deviation chart: deleted.

22. Best-Fit Tests:

- calculation of Kolmogorov - test,
- calculation of Shapiro-Wilk - test for non-normal distributions.

23. Machine capability study:

- it is to print standard deviation (s) among distribution parameters in case of normal distribution,
- capability index calculation for non-normal distributions,
- it is to print in capability study list +/- 3s percentiles instead of +/- 4s percentiles.

24. Control limit calculation for acceptance chart in case of Tool Change and Tool Wear processes.

Upgrade Information

Released: 12-27-2006



Changes:

1. DataConnect engine (calculation of moving average/range/deviation samples) fixed.

Upgrade Information

Released: 03-06-2007



New functions:

1. Realignment of the measuring program window: here can be seen dates of 14 items together instead of previous six items.
2. It is possible to modify the measured values after finishing of the data input - but before saving the dates - in measuring program window by clicking on the list.
3. Modification the handling of the automatic head / position ID: actual ID recorded, and by next running of this measuring program will give the next ID.
4. CSV file input in the measuring program.
5. Increase of the picture displayed in measuring program (324 x 234 pixels).

Correction:

6. Correction of the failure of handling the automatic head / position ID.
7. Speed-up of processing of *DataConnect* file in case of x_i dates in Oracle database.
8. Data export into Excel table in reference to all processes is fixed.

Upgrade Information

Released: 05-05-2007

**New functions:**

1. Mettler AX/MX/UMX and Excellent scale-family have been added to list of supported gauges.
2. User can use COM port selected in the *Settings* menu *Gauges* menu item by running the measuring program instead of COM port selected in the given measuring program.
See **Settings** menu **MPG** menu item **Input/Measuring** sheet
3. Hungarian Quality Product Award 2006 complement in the greetings window.
4. Previous measured values founded in the database will be included into the first sample (to calculating moving average / range / standard deviation) by selecting of measured processes in case of processes with x/mx - mR/ms control chart. It is possible to drop previous measured values in this case.
See **Analysis** menu **Date range for analysis**

Modification, correction:

5. Colour of comments changed on the top of the MPG Editor window because of visibility.
See **MPG** menu **Create** menu item
6. HNS MUX-4 interface has been deleted from list of supported gauges.
7. Correction the text of MPG error message if it is a head and a position number together in an item.
8. Disabling the *Automatic exports* menu item in the *Settings* menu and *Automatic export* switch in the process settings in case of xBase database, because automatic export function is not usable by xBase database.
9. Modification the legends in the *Automatic export – Service* menu item in the *Settings* menu in the *Exported fields* part.
10. Column titles of *workgroup*, *machine* and *product* in the *Measured process* and *Attributed process* windows in the *Database* menu *Process settings – Table* menu items were not updated according to database terminology. Have been corrected.
11. Maximum 5 characters could be entered into *User ID* field in the *Import* menu items in the *Data* menu. Have been corrected, maximum 9 characters can be entered.
12. It could be entered only capital letters into the *Shift* and *Team fields* in the *Filter conditions* window. Have been corrected.
13. The up and down arrows helping the seeing of measured values (by sample size 6 or higher) after data input in the MPG window did not operate in case of S item. Have been corrected.
14. In case of post-modification of measured values entered in the MS,M,MX item of the MPG (with double click with left mouse button or one click with the right mouse button on the measured value in the list in the MPG window) was not updated the corrected measured value in the S item. Have been corrected.
15. Sample parameters (sample average, sample range, sample standard deviation) are not written relative to first, not displayed points on x/mx - mR/ms control charts.

16. Attributed samples were not saved in case of automatically saving. Have been corrected.
17. Modification the displaying of control chart if LCL = UCL.
18. Microsoft SQL Server: reports for lognormal processes are fixed.
19. Elcometer 300 thickness gauge module modified to take it on the message failure.

Upgrade Information

Released: 09-28-2007



New functions:

1. Further file types are possible to use relative to pictures, which are displayed in MPG (instead of previous .bmp and .gpi file types).
2. Support of measuring program selection: by typing initial characters of MPG name cursor will step to wanted MPG.
3. Possible setting, that data input will start by MPG selection directly.
See **Data inputs started automatically when MPG selected** switch on **Input/Measuring** sheet in **MPG** menu item of **Settings** menu.
4. Process Status Logging (PSL) in measuring program.
See **PSL** switch in **MPG** Editor, together with **Process Status Logging (PSL) enabled** switch on **Log/Alert** sheet in **MGP** menu item of **Settings** menu
5. Size of SQL error message window can be changed (whole message can be seen in one piece).
6. GG2 – Digital Height Gauge has been added to list of supported gauges.
7. If printing and displaying are set together relative to format of product certificate, certificate will be first displayed, than it will be printed only after validation. Settings relative to format of product certificate are valid also for the lowest (operator) accessing level.
See **Product** function in **Certificate** menu item of **Analysis** menu
8. A new setting in Capability Analysis and CTQ Capability - OoC Report: C_{pk}/C_p, respectively P_{pk}/P_p fields will be not red-coloured if C_{pk}, respectively P_{pk} indices are correct.
See **Reports** item **Settings** menu item

Modification, correction:

9. Median was calculated wrong in case of MSSQL2005 database if an outstanding value was in the given sample. Have been corrected.
10. Failure in Capability Analysis Report by QS9000 type: contents of LSL and USL fields had been reversed. Has been corrected.
11. P_p and P_{pk}, respectively C_p and C_{pk} fields were not coloured in Capability Analysis Report. Have been corrected.
12. TREND and RUN titles were not abbreviated in printed form of CTQ Capability - OoC Report. Have been corrected.

Upgrade Information

Released: 01-16-2008

**New functions:**

1. MAHR DIGIMAR CX2/DX2 height gauge has been added to list of supported gauges.
2. Displaying of capability index values can be disabled in printed analysis.
See **File** menu **Print settings** menu item
3. Sample codes user has given are displayed in capability study report in Q-DAS format in case of machine capability study.
See **Analysis** menu **Analysis** menu item **Capability study** function
4. 1RS-4BOW RS232 multiplexer has been added to list of supported gauges.
5. Gauge control function.
See **Settings** menu **Measuring gauge settings** menu item
6. In case of automatic head / position number incrementing can be changed the given closing value by the user who runs the measuring program.
See **MPG** menu **Run** menu item
7. New archiving feature: archived samples, which are selected for given time periods will be arranged in separate databases.
8. More, maximum five HNS DataConnect directories can be selected together.
See **Settings** menu **HNS DataConnect** menu item

Modification, correction:

9. In case of using an xBase database by many users (by many program issues) occurs an database record reading failure (file: LICENCE.dbf). Fixed.
10. Names in the report's header do not follow the settings in database terminology. Corrected.
11. There is displayed the start time instead of end time in printed capability index diagram in time period field. Fixed.
12. **Calculate capability indices by QS9000 formula** switch that can be found in **Calculations** menu item of **Settings** menu will be switched on as default.
13. There is written *control* instead of *monitoring* in capability study report in Q-DAS format. Fixed.
14. Capability index calculation is incorrect in case of a process with Johnson transformation and mx - mR / ms control chart. Fixed.
15. There is a failure in the reports in case of displaying a capability index greater than 99. Corrected.
16. There is a failure in case of printing a capability study report in HNS format (in the last column of measured values). Fixed.
17. It is deleted the time (h : min) setting by selecting the time period in case of preparing a capability index diagram.
18. Recording of sample codes is faulty by HNS DataConnect function in case of choosing 'load process identifiers by files' possibility. Fixed.
19. In case of deleting samples by date will be displayed a message, when deleting is performed.

20. End of Inputs window misses in case of device strategy in the measuring program. Fixed.
21. False data input by HNS Digimatic USBMUX if there are used more channels simultaneously. Fixed.

Upgrade Information

Released: 04-24-2008



New functions:

1. HNS INDMUX-64 interface has been added to list of supported gauges, whereby electronic probes can be connected to a computer.
2. Possibility for setting the number of decimals in displayed calculated parameters - decreasing number of decimals compared to the foregoing (see *Settings - Calculations*).
3. Possibility for displaying a diagram, which sings actual value related to tolerance limits, in measuring window - in case of using a gauge connected by HNS Digimatic SMUX or USBMUX interface.
4. Operation to set a value in the S item of the measuring program.
5. Possibility for modifying the marking of measured value out of specification limits (see *Settings - MPG - Others*).
6. Histogram can be displayed set to tolerance limits also for that histogram which is displayed on engineer level in Analysis menu (see *Settings - Calculations*).
7. Program starter window can be displayed as a status icon on the System Tray.

Modification, correction:

8. It is deleted *CpkChart.log* file that is made by the program in C:\ directory in case of preparing a capability index diagram.
9. By preparing a product certificate is changed the label on the *View-Print* button according to the settings in the *Print settings* menu item in the *File* menu (send to the printer, list on the screen).
10. Program breaks down in case of printing an attributed analysis. Fixed.
11. There are displayed C_p / C_{pk} values instead of P_p / P_{pk} values on the capability index diagram. Fixed.
12. Last point on the capability index diagram is sometimes displayed on the first place. Fixed.
13. There are displayed in the data window on the capability index diagram only that statistical parameters (mean and deviation) which are used by calculating of given capability index.
14. Displayed picture is not upgraded in case of attributed parameter by running a measuring program. There is always displayed the picture which is related to the last measured parameter. Fixed.
15. In case of data input from keyboard if there is not written any measured value and data input is started (by *Measure* button or *Enter* key), program is read in a 0 value. Fixed.
16. There are slipped the days on the monthly capability index diagram because of conversion summer and winter time. Fixed.

17. There is a failure in the calculation of Johnson transformation in case of using an individual / moving average - moving deviation / moving range control chart: Fixed.
18. By defining a measured process by product program overwrites processes, which have been already defined (this can effect deleting of sub-processes – without a warning message). Fixed.
19. Program stops during checking a sample (if there are not any Out of Control case in it) in automatic alert function in case of MSSQL database. Fixed.
20. Sample, which has been deleted from the database, is not deleted from the alert status matrix in automatic alert function in case of dBase database. Fixed.
21. Time of the automatic control chart refreshing is too long in dBase database. Fixed.
22. Handling of Mecmesin force gauge does not operate. Fixed.
23. '*Invalid date format*' message in case of copying some dBase databases. Fixed.
24. PCL1761 card (taking external foot switch) does not operate. Fixed.
25. Scales of the displayed histogram, and (actual and ideal) density diagram compared to each other have been modified.

Upgrade Information

Released: 07-16-2008

Release: 5.5.12																									
	<table border="1"> <thead> <tr> <th colspan="2">Program Configuration Data</th> </tr> </thead> <tbody> <tr> <td>Database:</td><td>U1.12</td></tr> <tr> <td>MPG / Built-in Parser:</td><td>U2.7/U1.2</td></tr> <tr> <td>Gauge Engine:</td><td>U1.64.1</td></tr> <tr> <td>HNS SPC DataConnect:</td><td>U1.12</td></tr> <tr> <td>HNS SPC IDCConnect:</td><td>U1.8</td></tr> <tr> <td>Print Engine:</td><td>U1.9</td></tr> <tr> <td>E-mail Engine:</td><td>U1.3</td></tr> <tr> <td>Alert Engine:</td><td>U1.6</td></tr> <tr> <td>Report Engine:</td><td>U1.9</td></tr> <tr> <td>Export Engine:</td><td>U1.3</td></tr> <tr> <td>Sample Control Engine:</td><td>U1.8</td></tr> </tbody> </table> <p>*: version of currently used database</p>	Program Configuration Data		Database:	U1.12	MPG / Built-in Parser:	U2.7/U1.2	Gauge Engine:	U1.64.1	HNS SPC DataConnect:	U1.12	HNS SPC IDCConnect:	U1.8	Print Engine:	U1.9	E-mail Engine:	U1.3	Alert Engine:	U1.6	Report Engine:	U1.9	Export Engine:	U1.3	Sample Control Engine:	U1.8
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New functions:

1. Sampling control function.
2. ESECO-Speedmaster/SM-10T Densitometer added to list of supported gauges.
3. Automatic upgrade for configuration files (versions supported from 5.4.25).
4. It is possible to set, that by running a measuring program only the processes are displayed in the process selection window, that are appointed for automatic chart displaying. This MPG setting is valid for a workplace.
5. Possibility for displaying a diagram, which sings actual value related to tolerance limits, in measuring window - in case of using a Simplex and Duplex Opto RS232 gauge.
6. It is possible to set, that the *Save this marker with all samples of the MPG* switch in the *Marker Data* window that is displayed by running a measuring program (by means of the *M* button of the control chart or measurements diagram) is switched on as default.
7. It is possible to list the products after their name in the product selection windows.
8. Displaying of measured values of M and MX type MPG commands can be turned on/off.

Modification, correction:

9. Changing made on the *E1, E2* sheet in the *MPG Editor* are not saved; *E2* item is always saved as an *E1* item. Fixed.

Upgrade Information

Released: 12-16-2008

**New functions:**

1. The capability indices can be hidden among the statistical data in the product certificate.
2. Measuring programs can be created in a simplified entry window.
3. Gauge selection is simplified (in the measuring program and in the gauge settings): the gauges used at the given measuring workstation can be enabled in a separate list (pre-selection).
4. *Generic Interface for Simple RS-232 Devices* has been added to list of supported gauges.

Modification, correction:

5. Incorrect labels in the English program version. Fixed.
6. On the *Others* sheet in the *MPG* menu item of the *Settings* menu, the connection between some switches and the order of them is incorrect. Fixed.
7. The *Chart automatically* switch can be enabled also in case of *M* items, but there is no control chart applied related to these processes (measurements are not stored). Fixed.
8. The label is incorrect at the bottom of the window in the *MINFO OoC DataConnection* menu item of the *Settings* menu. Fixed.
9. In case of *Simplex Opto RS232* gauge, the conversion function is not taken into account in the diagram, which sings the actual value related to the tolerance limits in the measurement window. Fixed.
10. Failures at the copying of the content of the configuration file. Fixed.
11. Among the gauge control settings in the *Gauges* menu item of the *Settings* menu, the borders of the validity range are not checked logically. Modified.
12. In case of redirection of the configuration file, also the file name has to be given - in contrast to the documentation. Modified (the file name is not needed).
13. In the *Default goals* menu item of the *Settings* menu, a checking has been built in related to the logical correctness of the given capability index values ($C_m/P_p/C_p \geq C_{mk}/P_{pk}/C_{pk}$).
14. The program stops during the printing of the capability study report in Q-DAS format. Fixed.
15. There is a failure in the Out of Control (Middle-Third) detection in case of attributed control charts. Fixed.
16. In the *Alerts - Scheduled tasks and running alerts* menu item, the program stops at the upgrading of the alert status matrix. Fixed.
17. There is a failure in the checking of the Sampling Control service. Fixed.
18. In the *Calculations* menu item of the *Settings* menu, the *Outstanding value - Set value status automatically* switch is not valid in case of data input by running a measuring program. Fixed.
19. The outstanding value detection has been modified in the measuring program.

20. If the *Control range must be in specification range* switch in the *Control chart* menu item of the *Settings* menu is enabled, and if the process mean is out of the specification range, the control limit calculation is incorrect. Fixed.
21. In the *Gauges* menu item of the *Settings* menu, the parallel port is removed.
22. The report created in the *Process Setting* menu item of the *Reports* menu contains also the control chart and the Out of Control settings in case of machine capability study. Modified.
23. On the *Batch* sheet in the *Archiving* menu item of the *File* menu, the beginning and closing date entry fields are not obvious. Modified.
24. The gauge checking is faulty, if there is a conversion function in the measuring program. Fixed.

Upgrade Information

Released: 03-31-2009

<i>Release: 5.5.14</i>	
	
Database:	U1.12
MPG / Built-in Parser:	U2.9/U1.2
Gauge Engine:	U1.66.0
HNS SPC DataConnect:	U1.12
HNS SPC IDConnect:	U1.0
Print Engine:	U1.10
E-mail Engine:	U1.3
Alert Engine:	U1.7
Report Engine:	U1.11
Export Engine:	U1.3
Sample Control Engine:	U1.1
On-line Update / Update Engine:	U1.0/U1.0

New functions:

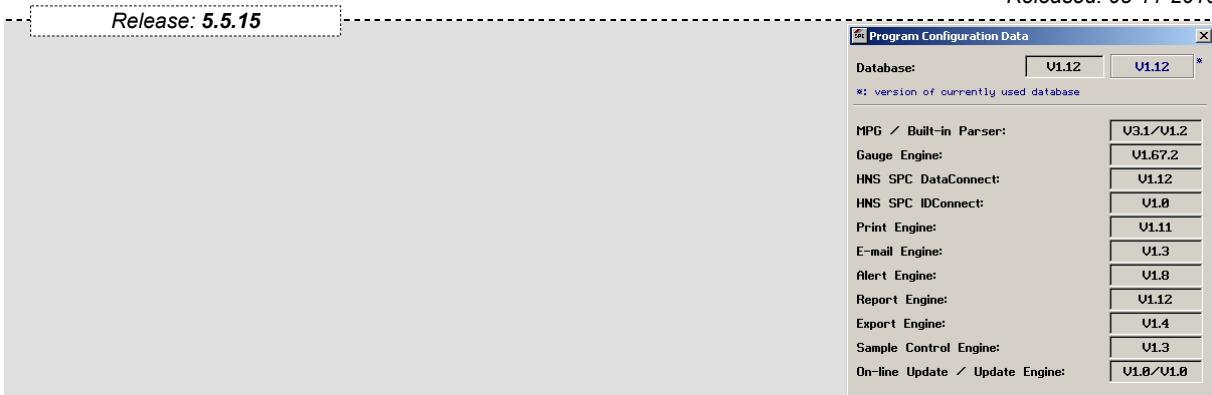
1. HNS SMUX-8 / USBMUX-8 have been added to list of supported gauges.
2. Chatillon DF series of force gauges have been added to list of supported gauges.
3. On-line upgrade.

Modification, correction:

4. In case of attributed processes, the sample size input field is faulty (in the *Table* menu item of the *Process settings* menu). Fixed.
5. In the *CTQ Capability - OoC Report* menu item of the *Reports* menu, the percent values in the CL fields are faulty. Fixed.
6. At the time range selection in the menu items of the *Reports* menu, the explanation of the beginning and closing dates is faulty. Fixed.
7. *HeadTracking* function is not operates. Fixed.
8. At the *MPG - Create - MPG Wizard* menu item, the program stops in some cases. Fixed.
9. In the measurement windows, the colour of the port and channel fields is modified.
10. If the measured value is modified in the measuring program subsequently, the unit is not correct in some cases. Fixed.

Upgrade Information

Released: 05-11-2010

**New functions:**

1. The measuring program functionalities are expanded with a complex dynamic measurement function; it is possible to measure axial parts in measuring device on rotating. This measuring mode can be used with inductive measurement probes (HNS-INDMUX) and Digimatic gauges (HNS SMUX/USDMUX). It is possible to manage measuring devices with one and two axles by dynamic measurement function.

See the HNS SPC – Measuring program documentation!

2. Functions in the measuring program, which can be used in device strategy, are enlarged, for example, measurements can be sorted into groups, so more measuring devices can be used in one measuring program, in case of using a measuring device; it is possible to use also manual gauges in a measuring program with device strategy, etc.

See the HNS SPC – Measuring program documentation!

3. Continuous (every part) measurement can be handled by measuring program, automatic SPC sampling based on measurements of every part can be set also.

See the HNS SPC – Measuring program documentation!

4. Measured result of continuous measurements made by measuring programs can be logged.
5. It is possible to receive - beside CSV files - measured results stored in simple text files having fixed format in the measuring program.
6. Analysis functions have been enlarged; the corrected nominal value and deviation based on 13/2008. (VIII. 8.) NFGM-FVM can be calculated and displayed.

Modifications and corrections:

7. The protocol of the HNS USBMUX multiplexers has been changed, so also the program had to be modified.

Earlier program versions incorrectly manage the USBMUX multiplexers made after 10.06.2009, but new program version manages correctly both previous and new USBMUX multiplexers.

8. The RUN cases, which are out of the control limit on the given side, are not marked. It is fixed.
9. Among the process settings of to the sampling control service, in case of sampling by time the maximum limitation (60 minutes) of the acceptable difference is removed.
10. If there are not enabled all of the gauges in the *Gauges - List* menu item of the *Settings* menu, a program failure occurs if a measuring program containing one or more measuring gauge is opened for editing. It is fixed.
11. In case of creating a new attributed parameter, there is a failure at the saving of the failure category-settings (related to the 2nd language). It is fixed.
12. Managing of MINFO OoC data is fixed.

13. Attributive processes were not displayed or were displayed faulty in the *Data - Alerts - Alert states by processes* menu item. It is fixed.

14. In some cases, the program can be hanged by running the measuring program and when the data stored and the automatically displayed control chart closed (if the measuring program contained attributive items only and automatic control chart displaying). It is fixed.



HNS SPC V5.6.x

Upgrade Information

We will issue the upgrade information on new releases of the HNS SPC software at the www.hns.eu/spc/downloads/SPC56downloads.aspx page in the future.

The V5.6.1 – the first – release of the new V5.6 version of the HNS SPC was released on 27 August 2012 and the upgrade conditions was also changed from this date.

For more information see the www.hns.eu page!